Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte CHRISTOPHER M. DURHAM and PETER J. KLIM

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Appeal No. 2000-0354
Application No. 08/682,471

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ON BRIEF

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Before THOMAS, FLEMING, and RUGGIERO, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellants have appealed to the Board from the examiner's final rejection of claims 1 through 20. Representative claim 1 is reproduced below:

> 1. A circuit for monitoring energy dissipation in a functional unit on an integrated circuit comprising:
>
> an energy sensing circuit fabricated on the integrated circuit for measuring or estimating energy dissipation of the functional unit; and

a first circuit fabricated on the integrated circuit for controlling operation of the functional unit in response to the measured or estimated energy dissipation of the functional unit.

The following references are relied on by the examiner:

Bajorek et al. (Bajorek)	5,452,277	Sep. 19, 1995
Webster et al. (Webster)	5,504,909	Apr. 2, 1996

Claims 1 through 20 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Bajorek in view of Webster.

Rather than repeat the positions of the appellants and the examiner, reference is made to the briefs and the answer for the respective details thereof.

OPINION

As will be apparent from the following discussion, we sustain only the rejection of independent claim 1 and reverse the rejection of the remaining claims, 2 through 20, on appeal.

Although Bajorek's system is, according to the title, directed to an adaptive system for optimizing disk drive power consumption, significant teachings and suggestions exist in the background discussion at columns 1 through 3 of this reference leading us to conclude the propriety of the combinability of Bajorek and Webster within 35 U.S.C. § 103. The environment of discussion begins in the initial paragraphs of Bajorek at column

1 of microprocessor and battery powered laptop computers and notebook computers. Their discussion extends, in accordance with the paragraph bridging columns 2 and 3, to a self contained battery powered keyboard entry device using microprocessors where the system is designed to conserve power by automatically powering down to the standby mode between keystrokes. Most telling however, is the discussion in the middle of column 3 where it is recognized that portable computers have different levels of power control including the third level where the separately powered elements themselves each decide when to reduce power by going to a lower power operating mode. This is consistent with the disclosed and claimed invention.

On the other hand, Webster's title clearly indicates a power management control apparatus which has been collocated on the same integrated circuit chip as the functional unit that it manages. This concept is shown in the initial embodiment in figures 1 through 4. These showings as well are consistent with the disclosed and claimed invention.

As asserted by the examiner in the final rejection and answer, we agree with the examiner's view that it would have been obvious to place the circuitry of the admitted prior art as well as the teachings of Bajorek on the same integrated circuit chip

as claimed, in view of the significant teachings and suggestions in Webster to modify those already taught in Bajorek, particularly those noted earlier at column 3, as well as his substantive teachings as well. The examiner's reasoning, set forth at the top of page 3 of the final rejection, of combinability is to speed the transfer of data and reduce overall size and cost of production and is supported by the collective teachings and showings of both references. Moreover, the advantages set forth at columns 6 and 7 of Webster are highly desirable to have been imparted to the overall system of Bajorek.

With these considerations in mind, we sustain the rejection of independent claim 1 on appeal for the reasons set forth by the examiner as initially argued at page 2 of the final rejection. To the extent broadly recited, the energy sensing at least includes the energy monitor 28 and the fuzzy logic energy comparator 36 in figure 1 of Bajorek with the controlling first circuit claimed being provided at least by the remote controller 24. Various embodiments of both digital and analog sensing circuits are depicted in later figures. The combined teachings of Bajorek and Webster clearly teach the additional feature that the various sensing and other circuits set forth in the body of independent claim 1 on appeal are both fabricated on the same

integrated circuit structure as the functional unit itself as required by the preamble as well.

We are unpersuaded by appellants' arguments as to the rejection of this claim beginning at page 3 of the brief. The examiner does not rely upon Webster to teach the basic requirements of the body of independent claim 1 of an energy sensing circuit and of the first circuit for controlling, as argued. The examiner's views as we understand them and as clearly indicated by Bajorek itself, are found in this reference and not in Webster. Appellants' arguments in the brief never assert that Bajorek does not teach what the examiner asserts that it does teach, but instead appear to argue only that Webster does not teach features that the examiner does not assert are in this reference anyway.

We do not sustain the rejection of the remaining claims on appeal because we are in general agreement with appellants' assertions with respect to them beginning at the bottom of page 6 of the principal brief on appeal. Dependent claims 2, 5, and independent claim 16, (as well as independent claim 7, though not argued by appellants) all require placement of the functional unit in a low power mode when the measured or estimated energy dissipation of the functional unit <u>exceeds</u> a predetermined value.

As noted by appellants at the bottom of page 6 of the brief, Bajorek does not teach this feature. On the contrary, Bajorek places the components of the disk drive system in a low power mode when the measured energy of a disk drive system is less than a predetermined value, not greater than this value as required by the noted claims on appeal. This is clear from the discussion at columns 6 and 7 of Bajorek as well as the showings in figures 6A, 6B and figures 10 and 12.

The examiner's corresponding argument at the top of page 3 of the answer as to appellants' arguments with respect to claims 2, 5 and 16 refers us to the examiner's "Official Notice" comments in the final rejection. The initial instance where these examiner's comments occur are at page 3 in paragraph 5 in the final rejection where the examiner essentially takes Official Notice that it would have been obvious to the artisan to reduce power when an over power sensing situation occurs to ensure that the devices do not malfunction under extreme conditions. The examiner's second instance in the final rejection occurs at page 5 where it asserts that the concept (apparently the concept of reducing power when a sensed value exceeds a predetermined value) is considered by the examiner to be as old as computers themselves. The examiner goes on to remind appellants to "look

at the references cited, in particular Kikinis (US# 5502838) which shows using temperature as a condition for reducing power." Since the examiner has never cited this reference in the answer and has made no formal statement of rejection regarding it, we will not consider its teachings and suggestions. "Where a reference is relied on to support a rejection, whether or not in a minor capacity, that reference should be positively included in the statement of the rejection." Manual of Patenting Examining Procedure (MPEP) § 706.02(j). This portion relies upon In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970).

We are constrained to reverse the outstanding rejection of claims 2-20 because there is no evidence before us of the feature of exceeding a threshold among the references relied upon by the examiner in formulating the rejection. Essentially, we conclude the examiner has not set forth a prima facie case of obviousness as to these claims. We reach this conclusion buttressed by the reasoning provided by recent cases from our reviewing court. "[T]he Board cannot simply reach conclusions based on its own understanding or experience - or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings." In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693,

1697 (Fed. Cir. 2001). See also In re Lee, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002). The court in Lee requires evidence for the determination of unpatentability by clarifying that "common knowledge and common sense," as mentioned in In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969), may only be applied to analysis of the evidence, rather than be a substitute for evidence. Lee, 277 F.3d at 1345, 61 USPQ2d at 1435. See Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc., 183 F.3d 1347, 1356, 51 USPQ2d 1415, 1421 (Fed. Cir. 1999)(Bozek's reference to common knowledge "does not in and of itself make it so" absent evidence of such knowledge).

Although we do not have before us an assertion of common knowledge and common sense in the art as in In re Lee, the examiner has made an analogous assertion that the feature of exceeding a threshold was essentially notoriously old and well known in the art. Correspondingly, the examiner's assertion appears to us to be a substitute for actual evidence to prove the examiner's assertion. See Lee above. More recently, however, the court expanded its reasoning in In re Thrift, 298 F.3d 1357, 2002 U.S. App. LEXIS 16446 (Fed. Cir. 2002).

Since the examiner has indicated at page 5 of the final rejection by the examiner's reference to Kikinis that the feature

of lowering the power based upon the sensing circuits sensing a value that exceeds a predetermined threshold, the examiner should have no trouble applying this reference and/or any other prior art evidencing such a feature and properly applying it in a new rejection within 35 U.S.C. § 103. Taken in this light, this application is therefore remanded to the examiner for such consideration pursuant to 37 CFR § 1.196(a) and Manual of Patent Examining Procedure (MPEP) § 1211.

In view of the foregoing, we have sustained only the rejection of claim 1 of the claims on appeal and reversed the rejection of the remaining claims, claims 2 through 20. As such, the decision of the examiner is affirmed-in-part. This application is also remanded to the examiner pursuant to our earlier discussion for consideration of applying new rejections to the remaining claims.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART and REMANDED

JAMES D. THOMAS Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JOSEPH F. RUGGIERO Administrative Patent Judge	)	

JDT:hh

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